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SOURCE Radiotekhnicheskiye Materialy, Gosenergoizdat, 1952 (IC  
 TK 6560, R25).

SUMMARY OF SOVIET BOOK ON RADIO ENGINEERING MATERIALS

The book Radiotekhnicheskiye Materialy (Radio Engineering Materials), written by G. I. Ryabchinskaya and published in 1952 by Gosenergoizdat, deals with the electrical properties of radio materials, gives their physical, chemical, and mechanical properties, and describes various types of materials used for the production of radio parts. It is intended for use as a text in technical schools of the Ministry of the Communications Equipment Industry.

The book consists of seven parts, of which the first, the introduction, is concerned with the structure of matter and the classification of all substances. The second part (Chapter 1, 2, and 3) is given to the analysis of the physicochemical and electrical properties of radio materials. The properties and actual types of dielectrics are discussed in the third part (Chapters 4, 5, and 6), and information on piezo- and piezoelectricity is given in the fourth part (Chapter 7). Semiconductors are analyzed in the fifth part (Chapter 8) and conductors in the sixth (Chapter 9). Chapter 10 is given to cable parts and the seventh part (Chapter 11) deals with magnetic materials.

Some points in the book which may be of interest are as follows: The electrical properties of various liquid insulators (silicones, sovol, sovtol, etc.) are given in Paragraph 18, Chapter 5. The paper used as a dielectric in capacitors is discussed in Paragraph 25, Chapter 6. Polystyrene, polyethylene, teflon, askapon, polyisobutylene, and micalex are treated in the same chapter (Paragraph 31, High-Frequency Plastics). Paragraph 35, Chapter 6, gives the physical and electrical properties of various ceramics used in capacitors. Many of the latter, e.g., "tikonds" (N. P. Bogeroditskiy), "tiglin" (G. A. Smolenskiy), "tidol" (G. I. Skanavi), "tibar" (V. M. Vul'), are Soviet-developed. Wire and cable designations are given in Chapter 10. Ferrites are discussed briefly in Paragraph 62, Chapter 11; types mentioned are the NTs (nickel-zinc)-40 and the NTs-2500. The properties and uses of magnetostrictive materials are discussed.

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